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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,745	09/28/2001	Alan Wightman	DEXNON/095/PC/US	8639

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EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/869,745

Applicant(s)

WIGHTMAN ET AL.

Examiner

Jennifer A Boyd

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 22 – 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 22, 29 and 34 are indefinite because it is unclear if the Applicant is claiming the nonwoven web material comprising cellulosic and synthetic fibers and the web material comprising only cellulosic fibers. For sake of examination at this time, the Examiner will assume the Applicant is claiming only the nonwoven web material comprising cellulosic and synthetic fibers. The dependent claims 23 – 28, 30 – 33 and 35 - 36 are rejected as being dependent upon a rejected base claim.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b)

Art Unit: 1771

only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or  
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 37 – 41 are rejected under 35 U.S.C. 102(b) as being anticipated by DuCharme (EP 712,889 A2).

DuCharme is directed to a compounded fibrous dope composition of amine oxide cellulose solutions having a uniformly dispersed second fibrous material and shaped articles such as food casings produced from the compositions (Abstract).

As to claim 37, DuCharme teaches a paper made from a compounded dope composition, or viscose solution, made by mixing together a cellulose source, such as wood pulp and a second fibrous material (page 3, lines 49 – 51). In one embodiment, the second fibrous material can be certain nylons or polyolefins (page 8, lines 45 - 49), which are known in the art to be a synthetic materials. It should be noted that the finished article can be treated with a crosslinking agent, increasing the dimensional stability of the article to approximately the same as, and in many cases greater than, that seen in conventional fibrous casing (page 3, lines 55 – 58). If the dimensional stability of an article increases, the article is likely to have a lower cross direction wet expansion.

As to claim 38, DuCharme teaches that the cellulosic fibers can comprise vegetable fibers such as manila hemp (abaca), cotton, wood pulp, hemp and cotton linters (page 5, lines 37 – 59).

As to claims 39 - 41, DuCharme teaches that the fibrous dope has about 1 to about 16% by weight of cellulose based on the total weight of the dope and from about 1.5 to 1000 % by weight of the second fibrous material based on the weight of the cellulose (page 6, lines 18 – 25).

Art Unit: 1771

It should be noted that the ranges specified by DuCharme would overlap the ranges specified in claims 25 – 27.

6. Claims 42 – 44 are rejected under 35 U.S.C. 102(a)(e) as being anticipated by Oxley et al. (US 5,942,354).

Oxley is directed to a curl resistant battery separator (Abstract). Oxley notes that a variety of materials have been used as battery separators such as fiber-reinforced generated cellulose (sausage casings) (column 1, lines 29 – 34).

As to claim 42, Oxley teaches a nonwoven substrate coated on at least one surface with a cellulose film (column 2, lines 18 – 40). The nonwoven substrate can comprise a blend of cellulosic and non-cellulosic fibers (column 6, lines 9 – 11). Suitable cellulosic fibers include cotton, hemp, jute and wood pulp (column 5, lines 28 – 30). Suitable synthetic fibers include polyamide, polyester and polyolefin (column 5, lines 30 – 35). The nonwoven substrate can include a binding means such as resins, viscose, regenerated cellulose and liquid based bonding agents (column 5, lines 20 – 55) and the binding can be applied by saturation bonding. Impregnated fabrics are defined by having their interstices completely filled by a resin or binder, which is also accomplished saturation bonding which is a process of binding fibers into a nonwoven fabric by soaking the web with an adhesive.

As to claim 43, Oxley teaches that the nonwoven substrate can be wet laid (column 5, lines 25 – 17).

As to claim 44, Oxley teaches that the drying means may be humidity controlled hot air dryers which may be paired with nip rollers (column 11, lines 35 – 40). The exposure of the nip

Art Unit: 1771

rollers to the hot air dryers would heat the nip rollers; these rollers are being equated to Applicant's "heated cylinders".

***Claim Rejections - 35 USC § 102/103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 22 – 24, 28 – 29 and 31 – 36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Oxley et al. (US 5,942,354).

Oxley is directed to a curl resistant battery separator (Abstract). Oxley notes that a variety of materials have been used as battery separators such as fiber-reinforced generated cellulose (sausage casings) (column 1, lines 29 – 34).

As to claims 22 and 29, Oxley teaches a nonwoven substrate coated on at least one surface with a cellulose film (column 2, lines 18 – 40). The nonwoven substrate can comprise a blend of cellulosic and non-cellulosic fibers (column 6, lines 9 – 11). Although Oxley does not explicitly teach the claimed lower cross direction wet expansion than a similar web material comprising only the same cellulosic fibers, it is reasonable to presume that the claimed lower cross direction wet expansion than a similar web material comprising only the same cellulosic fibers is inherent to Oxley. Support for said presumption is found in the use of like materials (i.e. a nonwoven web material comprising cellulosic and synthetic fibers) which would result in the

Art Unit: 1771

claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of lower cross direction wet expansion than a similar web material comprising only the same cellulosic fibers would obviously have been present once the Oxley product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

As to claim 23, Oxley teaches that suitable synthetic fibers include polyamide, polyester and polyolefin (column 5, lines 30 – 35).

As to claim 24, Oxley teaches that suitable cellulosic fibers include cotton, hemp, jute and wood pulp (column 5, lines 28 – 30).

As to claims 28 and 31, Oxley teaches that the nonwoven substrate can be wet laid (column 5, lines 25 – 17) which is made on a modified papermaking machine.

As to claim 32, Oxley teaches the nonwoven substrate can include a binding means such as resins, viscose, regenerated cellulose and liquid based bonding agents (column 5, lines 20 – 55) and the binding can be applied by saturation bonding. Impregnated fabrics are defined by having their interstices completely filled by a resin or binder, which is also accomplished saturation bonding which is a process of binding fibers into a nonwoven fabric by soaking the web with an adhesive.

As to claim 33, Oxley teaches a nonwoven substrate coated on at least one surface with a cellulose film (column 2, lines 18 – 40) and that the suitable cellulosic coatings include regenerated cellulose (column 5, lines 7 – 15).

As to claims 34 – 36, the processes of “bonding with regenerated cellulose or a resin binder or a mixture of resin binders”, “impregnation with viscose from which cellulose is

Art Unit: 1771

thereafter regenerated” and “drying of the web material by a plurality of heat cylinders” are not given any patentable weight because they have no impact on the final product. Oxley teaches a nonwoven substrate coated on at least one surface with a cellulose film (column 2, lines 18 – 40). The nonwoven substrate can comprise a blend of cellulosic and non-cellulosic fibers (column 6, lines 9 – 11). Oxley teaches that the web contains regenerated cellulose (column 5, line 44) and the final web material is in a dried state.

***Claim Rejections - 35 USC § 103***

9. Claims 25 – 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oxley et al. (US 5,942,354).

Oxley discloses the claimed invention except for that the cellulosic web includes wood pulp fibers in an amount of up to 50% by weight of a total weight of cellulosic and synthetic fibers as required by claims 25 and 30, the content of synthetic fibers in the web material is from 0.5 to 20% by weight of a total weight of cellulosic and synthetic fibers as required by claim 26 and the content of synthetic fibers in the web material is from 3 to 9% by weight of a total weight of cellulosic and synthetic fibers as required by claim 27. It should be noted that the amount of cellulosic and synthetic fibers in the fibrous web are result effective variables; for example, as the amount of cellulosic fibers increases, the web will become more paper-like. It would have been obvious to one having ordinary skill in the art at the time the invention was made to Oxley, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the

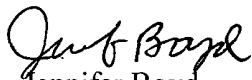
Art Unit: 1771

present invention, one would have been motivated to optimize the level of cellulosic and synthetic fibers to create a web with properly balanced elasticity, thermal stability and strength.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 703-305-7082. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
Jennifer Boyd  
April 4, 2003

